

extension fee is enclosed. Please charge any additional fee required for the extension, or credit any overpayment, to Deposit Account 06-1205.

In response to the Official Action dated October 22, 2001, please amend the above-identified application as follows:

IN THE CLAIMS:

✓ Please CANCEL claims 9-15 without prejudice to or disclaimer of the recited subject matter.

Please ADD new claims 16-21 as follows:

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--16. A projection exposure apparatus, comprising:

- an illumination optical system for illuminating a reticle with light from a light source, wherein said illumination optical system includes an optical integrator for producing secondary light sources with illumination light supplied from the light source, and masking means for restricting an illumination range to be defined on a surface which is to be illuminated with the illumination light;
- a projection optical system for projecting a pattern of the reticle, as illuminated, onto a substrate;
- measuring means for measuring telecentricity of said projection optical system with respect to different image heights; and
- adjusting means for adjusting an incidence angle, upon the reticle, of illumination light corresponding to each of the different image heights, to correct the

telecentricity with respect to a respective image height, wherein said adjusting means moves an optical element disposed in a portion of said illumination optical system between said optical integrator and said masking means, along an optical axis direction, to thereby change an angular distribution of illumination light entering said projection optical system.

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An apparatus according to Claim 16, wherein said optical element is a lens.

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A projection exposure apparatus, comprising:

an illumination optical system for illuminating a reticle with light from a light source;

a projection optical system for projecting a pattern of the reticle, as illuminated, onto a substrate;

measuring means for measuring telecentricity of said projection optical system with respect to different image heights, wherein said measuring means also measures telecentricity of said projection optical system with respect to an optical axis;

first adjusting means for adjusting an incidence angle, upon the reticle, of illumination light corresponding to each of the different image heights, to correct the telecentricity with respect to a respective image height; and

second adjusting means for adjusting an incidence angle of light upon the reticle to correct the telecentricity with respect to the optical axis.

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19. An apparatus according to Claim 18, wherein said illumination optical system includes an optical integrator for producing secondary light sources with illumination light supplied from the light source, and wherein said optical element is disposed at a light entrance side of said optical integrator.

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20. A projection exposure apparatus, comprising:

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an illumination optical system for illuminating a reticle with light from a light source;

a projection optical system for projecting a pattern of the reticle, as illuminated, onto a substrate;

measuring means for measuring telecentricity of said projection optical system with respect to different image heights;

adjusting means for adjusting an incidence angle, upon the reticle, of illumination light corresponding to each of the different image heights, to correct the telecentricity with respect to a respective image height; and

correcting means for correcting a change in an illuminance distribution on a surface to be illuminated, resulting from a change in an angular distribution of the illumination light effected by said adjusting means.

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A projection exposure apparatus, comprising:

an illumination optical system for illuminating a reticle with light from a light source, wherein said illumination optical system includes an optical integrator for defining a plurality of secondary light sources by use of light from the light source, masking means for regulating an illumination region upon the reticle, a first optical system for illuminating said masking means by use of light from said plurality of secondary light sources, and a second optical system for collecting light from an opening of said masking means onto the reticle;

a projection optical system for projecting an image of the reticle, being illuminated, onto a substrate; and

an adjuster for adjusting telecentricity of said projection optical system,

wherein said first optical system includes a lens being movable along an optical axis direction, thereby to change the telecentricity, and said adjuster includes a mechanism for moving said lens in the optical axis direction. --

REMARKS

Applicant requests favorable reconsideration and allowance of the subject application in view of the preceding amendments and the following remarks.

Claims 16-21 are now presented for consideration, in lieu of claims 9-15, which have been canceled without prejudice or disclaimer. Claims 16, 18, 20 and 21 are independent.